

Remarks

Claims 1-43 are pending in this Application. Claims 1-31 have previously been canceled without prejudice. Claims 37-40 are herewith canceled without prejudice. In the Office Action mailed May 14 2007, the Examiner rejected Claims 32-36 and 40-43 under 35 U.S.C. §102(b) as being anticipated by Kirk et al. (US Patent No. 6,419,742; hereinafter "Kirk"). In an Advisory Action mailed August 30, 2007, the Examiner stated the claim amendments provided herewith would require further consideration and/or search. Accordingly, Applicants, with this paper, submit the amendment previously proposed to the Examiner in a reply having a date of July 20, 2007.

Applicants have amended Claim 32 to describe a semiconductor surface as a Si(100) surface. Claim 35 has been amended to further describe the claimed invention in accordance with amended Claim 32. Applicants' amendments are in accordance with a suggestion set forth by the Examiner in the Office Action mailed May 14, 2007, and were discussed in an interview held on July 12, 2007. In the Office Action, the Examiner stated, "Kirk teaches that a single monolayer of arsenic may be employed to passivate a Si(111) surface" (see pg. 2), "while Kirk teaches that additional layers may be necessary for the Si(100) surface" (see pg. 3). In fact, Applicants point out that Kirk explicitly states that their invention is unsuccessful in accomplishing Applicants' claimed invention particularly when passivating (valence mending) a Si(100) surface by stating, "With the Si(100) surface, however, it has been found that the passivation layer may not completely prevent sulfur from reacting with silicon" (Col. 5, ll. 5-8). As such and in accordance with the Examiner's suggestion, Applicants have amended Claim 32 to include valence mending a Si(100) with one atomic layer of valence-mending atom and valence mending creates a second surface without dangling bonds and free of interfacial reactants. Applicants submit that the claimed invention is not anticipated by Kirk because Kirk does not teach each and every element of Applicants' claimed invention. Applicants further submit that no additional search is required on the part of the Examiner because the amendment does not introduce new issues since they were already considered by the Examiner.

Applicants do not suggest that the amendments set forth herein are necessarily made in view of the cited references and reserve the right to protect additional, unclaimed subject matter in a

continuation application. Applicants reiterate that the amendments and remarks provided herewith introduce no new matter and are not believed to introduce new issues requiring further consideration and/or search by the Examiner.

Conclusion

Pursuant to the filing of this Amendment and a Request for Continued Examination and in light of the amendments and remarks presented with this paper, Applicants respectfully submit that the claims as provided in the Listing of Claims beginning on page 3 of this paper are in condition for allowance. Accordingly, favorable consideration for and allowance of such claims are respectfully requested.

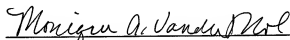
Fees for a one-month extension are believed due with this Amendment. If this is incorrect, the Commissioner is authorized to charge those additional fees, other than the issue fee, that may be required by this paper to Deposit Account No. 07-0153.

Should the Examiner have any questions or comments, or if further consideration or clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Dated: September 14, 2007

Respectfully submitted,

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